Page 102, line 7, please delete "1362" and insert --468-- therefor.

Page 105, line 1, please delete "anacronym" and insert --an acronym-- therefor.

Page 110, line 11, please delete "(PCT/US97/15892)" and insert --having International Patent Application No. PCT/US97/15892 filed September 8, 1997, and also having a corresponding U.S. national Patent Application No. 09/194,367 filed November 24, 1998, wherein both of these documents are fully incorporated herein by reference. Moreover, note both of these documents include important aspects of the present invention regarding at least the mobile base station 148 and the wireless location processing performed therefor. In particular, APPENDIX A of each of these documents is fully incorporated by reference herein. More particularly, APPENDIX A of these documents includes a description of the program "mobile_base_station_controller" referenced in Fig.11(1). Note, that the description of this program describes some of the functionality of the location controller 1535 for activating, e.g., the baseline location estimators 1540.-- therefor.

Page 131, line 4, please delete "for generating" and insert --that generates-- therefor.

IN THE CLAIMS:

Please cancel Claims 1 through 5, and please enter the Claims 6 through 41 provided hereinbelow.

16. (new) A method for locating a particular mobile station, wherein said particular mobile station is one of a plurality of mobile stations, and wireless signal measurements are capable of being obtained using wireless transmissions between each of the plurality mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

first providing access to at least some of a plurality of estimators for estimating locations of said mobile stations, wherein each of said at least some estimators provide a corresponding location estimate when supplied with a corresponding portion of said wireless signal measurements obtained from wireless transmissions between said mobile stations and said network of communication stations;

second providing access to a plurality of data item collections, wherein for each of a plurality of geographical locations, there is a corresponding one of said data item collections having (a1) and (a2) following:

(a1) a representation of the geographical location, and

(a2) data indicative of said wireless signal measurements between one of the mobile stations and the communication stations when said one mobile station is approximately at the geographical location of (a1);

for each of said at least some estimators and said data item collections, perform (b1) and (b2) following:

(b1) inputting to the estimator said corresponding portion of said wireless signal measurements obtained from each of said data of (a2) for some of said data item collections for generating corresponding location estimates;

(b2) comparing, for each of at least some of said data item collections providing input in (b1), said representation (a1) with said corresponding location estimate for determining one or more corresponding performance measurements of the estimator;

activating one or more of said estimators with their said corresponding portions of wireless signal measurements obtained using wireless transmissions between the particular mobile station and said network of communication stations for estimating one or more locations of said particular mobile station;

obtaining a resulting location estimate for the particular mobile station using said one or more locations;

wherein one of said steps of activating and obtaining is dependent upon one or more of said performance measurements.

22. (new) The method as claimed in Claim 6, wherein said plurality of estimators includes an estimator that outputs a location for at least one of the mobile stations that is dependent upon one of: (a) satellite signals received by said at least one mobile station, (b)

a time of arrival measurement of a signal between said at least one mobile station and the network of communication stations, (c) a time difference of arrival measurement of a signal between said at least one mobile station and the network of communication stations, (d) a recognition of a pattern in signals communicated between said at least one mobile station and the network of communication stations, (e) a statistical prediction technique dependent whose output location is dependent upon said plurality of data item collections, (f) an angle of arrival of signals communicated between said at least one mobile station and the network of communication stations.

8. (new) The method as claimed in Claim 6, wherein said step of activating includes determining said one or more of said estimators using at least one of said corresponding performance measurements for said one or more estimators.

9. (new) The method as claimed in Claim 6, wherein said step of obtaining includes deriving said resulting location estimate from a first location obtained from a first of said one or more estimators, and a second estimate obtained from a second of said one or more estimators.

10. (new) The method as claimed in Claim 9, wherein said step of deriving includes determining a most likely location for the particular mobile station using said first and second locations and at least one value obtained from said corresponding performance measurements of said first and second estimators.

11. (new) The method as claimed in Claim 6, further including a step of responding to Internet requests with at least said resulting location estimate.

12. (new) The method as claimed in Claim 11, wherein said resulting location estimate locates a vehicle.

13. (new) The method as claimed in Claim 6, wherein a same communication standard or protocol is utilized for locating said particular mobile station as is used by the communication stations for providing wireless communications with the plurality of mobile stations for one or more of: voice communication and visual.

14. (new) The method as claimed in Claim 6, wherein for one of said at least some estimators, said step of comparing includes deriving one of said corresponding performance measurements as a value indicative of a likelihood that a location estimate by said one estimator for said particular mobile station identifies one of the unknown locations.

15. (new) The method as claimed in Claim 6, further including a step of partitioning said plurality of (a2) portions of said data item collections into a plurality of partitions, wherein for substantially every one of said (a2) portions of said data item collections in a first of said partitions, such said (a2) portions satisfy an associated constraint for said first partition; and

for a first of said at least some estimators, said step of (b2) comparing includes the steps (c1) and (c2) following:

(c1) determining a first of said one or more corresponding performance measurements for said first estimator by using said corresponding location estimates from (b1) wherein said some of said data item collections include those of said first partition; and

(c2) associating said first performance measurement with said associated constraint, so that if said wireless signal measurements between said particular mobile station and the communication stations satisfy said associated constraint, then said first performance measurement is indicative of a likelihood that a first location obtained from said first estimator in said step of activating identifies a location of the particular mobile station.

16. (new) The method of Claim 15, wherein said wireless signal measurements between the particular mobile station and the communication stations satisfy said associated constraint when one or more of:

(a) said wireless signal measurements between the particular mobile station and the communication stations substantially identify a predetermined set of one or more communication station identifiers that identify communication stations that detect the particular mobile station, and

(b) said wireless signal measurements between the particular mobile station and the communication stations substantially identify a predetermined set of one or more communication station identifiers that identify communication stations that are detected by the particular mobile station.

17. (new) A method for determining, from a plurality of conditions, a particular condition, wherein for substantially every one of said conditions there is a corresponding set of data for identifying the condition, comprising:

obtaining a classification scheme for partitioning said plurality of conditions into a collection of classes, wherein for each said class, said conditions therein are identified when their said corresponding sets of data satisfy a class criteria for the class;

first providing access to a plurality of evaluators for evaluating said conditions, when each of said evaluators is supplied with said corresponding set of measurements, wherein at least a first of said evaluators is accessed via the Internet;

second providing a plurality of data item collections, wherein for each of a plurality of said conditions that are known, there is one of said data item collections having (a1) and (a2) following:

(a1) a representation of the known condition, and

(a2) information indicative of a data set for identifying said known condition of (a1);

for each of at least some of said evaluators, and each class C of a plurality of said classes, perform (b1) and (b2) following:

(b1) inputting said information of (a2) of each of at least some of said data item collections to the evaluator for generating a corresponding condition evaluation, wherein said data of (a2) is for one of the known conditions in the class C;

(b2) comparing, for each of at least some of said data item collections, said representation (a1) with said corresponding condition evaluation for determining a corresponding performance measurement of the evaluator for the class C;

determining at least a first of said classes for the particular condition;

activating one or more of said evaluators with their corresponding set of data for determining one or more evaluations of said particular condition, wherein said one or more evaluators includes said first evaluator;

obtaining a resulting evaluation for the particular condition using each of said one or more condition estimates;

wherein at least one of said steps of activating and obtaining is dependent upon one or more of said corresponding performance measurements of said first class for said one or more activated evaluators;

transmitting said resulting evaluation on the Internet to a predetermined destination.

13 ~~18~~. (new) A method as claimed in Claim 12 ~~17~~, wherein

(a) each said particular condition includes a geographical location of a mobile station; and

(b) each said corresponding set of data includes wireless signal measurements between the mobile station and a network of communication stations.

14 ~~19~~. (new) The method as claimed in Claim 12 ~~17~~, wherein said step of activating includes transmitting, on the Internet, a request to said first evaluator for evaluating the particular condition.

20. (new) A method for evaluating a particular condition of a plurality of conditions, wherein for substantially every one of said conditions there is a corresponding set of data for evaluating the condition, comprising:

accessing a classifier for classifying the particular condition into one or more classes of a plurality of classes for said plurality of conditions, wherein said classifier uses said corresponding set of data for the conditions for classifying the conditions;

selecting between two or more of evaluators for evaluating the particular condition, wherein communication with at least one of said two or more evaluators includes a transmission using the Internet;

wherein said step of selecting includes a substep of determining, for each of said evaluators, an indication as to whether information is available in said corresponding set of data for the particular condition for evaluating the particular condition by said evaluator;

activating one or more of said evaluators, selected in said selecting step, for obtaining evaluations of the particular condition, wherein a first of said one or more evaluators receives a portion of said corresponding set of data for the particular condition via the Internet;

obtaining one or more evaluator related preference data items for identifying a preferences among said evaluations, wherein said preference data items are for said one or more classes in which the particular condition is classified;

obtaining resulting evaluation information for the particular condition using at least one said evaluations of the particular condition and at least one of said preference data items; and

transmitting said resulting evaluation information on the Internet to a predetermined destination.

21. (new) The method of Claim 20, wherein

for each of at least some of said classes, assignment of said conditions said class is dependent upon a predetermined method determining a similarity in said corresponding set of data for said conditions assigned to the class; and

wherein said step of obtaining said one or more resulting evaluations includes determining a most likely evaluation using a plurality of said evaluations of the particular condition and a corresponding performance measurement for each of said plurality of evaluations.

22. (new) The method of Claim 20, wherein said step of obtaining said one or more evaluator related performance measurements includes obtaining, for at least a first of said one or more evaluators, a corresponding one of said related performance measurements by comparing evaluations, obtained for said first evaluator, for other of the conditions in at least one of the classes of the particular condition with known correct evaluations of the other conditions, wherein said corresponding one related performance measurement is indicative of a likelihood that said evaluations of the particular condition are correct evaluations.

23. (new) The method as claimed in Claim 20, wherein said plurality of conditions is one of:

(a) economic market related conditions, wherein said evaluators provide forecasts of future economic conditions;

(b) malfunctions in electronic systems, wherein said evaluators provide diagnoses of the malfunctions;

(c) text in documents for scanning, wherein said evaluators provide evaluations for identifying the scanned text;

(d) vehicle malfunctions, wherein said evaluators provide diagnoses of the vehicle malfunctions;

(e) computer malfunctions, wherein said evaluators provide diagnoses of the computer malfunctions;

(f) communication network malfunctions, wherein said evaluators provide diagnosis of the network malfunctions;

(g) medical conditions, wherein said evaluators provide diagnoses of the medical conditions; and

(h) weather data, wherein said evaluators provide predictions of future weather conditions.

24. (new) The method as claimed in Claim 20, wherein said classes are hierarchically ordered.

25. (new) The method as claimed in Claim 20, wherein said resulting evaluation information includes a diagnosis of said particular condition.

26. (new) The method as claimed in Claim 20, wherein said resulting evaluation information and at least one said evaluations includes an estimate for said particular condition.

27. (new) A method for determining, from a plurality of conditions, a particular condition, wherein for substantially every one of said conditions there is a corresponding set of data for identifying the condition, comprising:

determining a plurality of classes for said plurality of conditions , wherein for each said class, at least most of said conditions therein are each identified by predetermined criteria for identifying said corresponding set of measurements for the condition;

determining a plurality of estimators for estimating said conditions when supplied with said corresponding set of measurements;

storing a plurality of data item collections, wherein for each of said estimators and each of more than one of said conditions, there is one of said data item collections having:

(a1) a representation of the condition, and

(a2) a representation of a data set for identifying said condition of (a1);

(a3) an estimate of said condition generated by said estimator when said representation of (a2) is input to said estimator;

activating a first of said estimators with said corresponding set of data for said particular condition for determining a first estimate of said particular condition;

retrieving one or more of said data item collections, wherein for each of said retrieved data item collections, said estimate of (a3): (i) was generated by said first estimator, and (ii) has a determined relationship to said first estimate that is used in retrieving said one or more data item collections;

determining a second estimate of said particular unknown condition using said representations of (a1) from said retrieved data items.

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~~28.~~ (new) The method as claimed in Claim ~~27~~, wherein

(a) each said condition includes a geographical location of a wireless mobile station; and

(b) each said data set includes wireless signal measurements between the mobile station and a network of communication stations.

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24
~~29.~~ (new) An apparatus for locating mobile stations, wherein wireless signal measurements are capable of being obtained using wireless transmissions between each of the mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

an interface for accessing a plurality of estimators for estimating locations of said mobile stations, when said estimators are supplied with a corresponding input, wherein for at least a first and a second of said estimators, their corresponding inputs includes data obtained from a different one of: (a) satellite signals received by one of the mobile stations, (b) a time difference of arrival measurement of a signal between one of the mobile stations and the network of communication stations, and (c) a multipath pattern in signals communicated between one of the mobile stations and the network of communication stations, said interface for accessing including a routing component for providing said corresponding inputs to said estimators;

an interface for receiving measurements of wireless signals transmitted between said mobile stations and the communication stations, said interface for receiving including

a controller for requesting activation of at least one of said first and second estimators for estimating a location of one or more of the mobile stations, wherein, depending on whether said corresponding input is available for said first estimator, when said first estimator receives an activation request for locating a first of said mobile stations, a first location estimate is provided, and wherein, depending on whether said corresponding input is available for said second estimator, when said second estimator receives an activation request for locating the first mobile station, a corresponding location estimate is provided;

an output interface for outputting, mobile station location information obtained using one or more location estimates obtained form said estimators receiving activation requests by said controller.

30. (new) The apparatus of Claim 29, further including an archive having a plurality of data item collections, wherein for each of a plurality of geographical locations, there is a corresponding one of said data item collections having (a1) and (a2) following:

(a1) a representation of the geographical location, and

(a2) data indicative of said wireless signal measurements between one of the mobile stations and the communication stations when said one mobile station is approximately at the geographical location of (a1);

for each of at least some of said estimators and said data item collections, perform (b1) and (b2) following:

(b1) inputting to the estimator said corresponding portion of said wireless signal measurements obtained from each of said data of (a2) for some of said data item collections for generating corresponding location estimates;

(b2) comparing, for each of at least some of said data item collections providing input in (b1), said representation (a1) with said corresponding location estimate for determining one or more corresponding performance measurements of the estimator.

31. (new) The apparatus of Claim 24, wherein said output interface includes an access to the Internet for transmitting said location information to an Internet accessible destination for which a previous request for said location information was received by said apparatus.

32. (new) A method for locating a particular mobile station, wherein said particular mobile station is one of a plurality of mobile stations, and wireless signal measurements are capable of being obtained using wireless transmissions between each of the plurality mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

activating a first estimator from a plurality of estimators for estimating a location of the particular mobile station, when information is available in said corresponding set of measurements of the particular mobile station for estimating a location of the particular mobile station by the first estimator;

activating a second estimator from said plurality of estimators for estimating a location of the particular mobile station, when information is available in said corresponding set of measurements of the particular mobile station for estimating a location of the particular mobile station by the second estimator;

wherein, for providing a location estimate, each of said first and second estimators uses data obtained from a different one of: (a) satellite signals received by the particular mobile station, (b) a time difference of arrival measurement of a signal between the particular mobile station and the network of communication stations, (c) a multipath pattern in signals communicated between the particular mobile station and the network of communication stations;

outputting location information that provides a location of the particular mobile station, said location information obtained using one or more location estimates provided by said at least one of said first and second estimators.

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~~33~~. (new) A method for locating a particular mobile station, wherein said particular mobile station is one of a plurality of mobile stations, and wireless signal measurements are capable of being obtained using wireless transmissions between each of the plurality mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

selecting between two or more estimators for estimating a location of the particular mobile station, wherein each of said two or more estimators is dependent upon particular data provided by one of: (a) satellite signals received by the particular mobile station, (b) a time difference of arrival measurement of a signal between the particular mobile station and the network of communication stations, (c) an angle of arrival measurement of a signal between the particular mobile station and the network of communication stations, (d) a multipath pattern in signals communicated between the particular mobile station and the network of communication stations;

wherein said step of selecting includes a substep of determining, for at least one of said estimators, an indication as to whether information is available in said corresponding set of measurements for the particular mobile station for estimating the particular mobile station by said estimator;

activating one or more of said estimators, selected in said selecting step, for estimating one or more locations of said particular mobile station;

outputting location information that provides a location of the particular mobile station, said location information obtained using one or more location estimates provided by said one or more estimators activated in said step of activating.

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~~34~~. (new) A method for locating a particular mobile station, wherein said particular mobile station is one of a plurality of mobile stations, and wireless signal measurements are capable of being obtained using wireless transmissions between each of the plurality mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

selecting between two or more estimators for estimating a location of the particular mobile station, wherein each of said two or more estimators is dependent upon particular data obtained using one of: (a) satellite signals received by the particular mobile station, (b) a time of arrival measurement of a signal between the particular mobile station and the network of communication stations, (c) a time difference of arrival measurement of a signal between the particular mobile station and the network of communication stations, (d) an angle of arrival measurement of a signal between the particular mobile station and the network of communication stations, (e) a multipath pattern in signals communicated between the particular mobile station and the network of communication stations;

wherein said step of selecting includes a substep of determining, for at least one of said estimators, an indication as to whether information is available in said corresponding set of measurements for the particular mobile station for estimating the particular mobile station by said estimator;

activating one or more of said estimators, selected in said selecting step, for estimating one or more locations of said particular mobile station;

outputting location information that provides a location of the particular mobile station, said location information obtained using one or more location estimates provided by said one or more estimators activated in said step of activating.

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35. (new) A method for locating a particular mobile station, wherein said particular mobile station is one of a plurality of mobile stations, and wireless signal measurements are capable of being obtained using wireless transmissions between each of the plurality mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

selecting between two or more estimators for estimating a location of the particular mobile station, wherein each of said two or more estimators is dependent upon particular data obtained using one of: (a) satellite signals received by the particular mobile station, and (b) a multipath pattern in signals communicated between the particular mobile station and the network of communication stations;

wherein said step of selecting includes a substep of determining, for each of said estimators, an indication as to whether information is available in said corresponding set of measurements for the particular mobile station for estimating the particular mobile station by said estimator;

activating one or more of said estimators, selected in said selecting step, for estimating one or more locations of said particular mobile station;

outputting location information that provides a location of the particular mobile station, said location information obtained using one or more location estimates provided by said one or more estimators activated in said step of activating.

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~~36~~. (new) A method for locating a particular mobile station, wherein said particular mobile station is one of a plurality of mobile stations, and wireless signal measurements are capable of being obtained using wireless transmissions between each of the plurality mobile stations and a network of communication stations, each said communication station being for at least one of transmitting and receiving the wireless transmissions, comprising:

providing access to a plurality of estimators for estimating locations of said mobile stations, wherein each of said estimators provide a corresponding location estimate when supplied with a corresponding input, wherein for at least a first and a second of said estimators, their corresponding input includes data obtained from a different one of: (a) satellite signals received by the particular mobile station, (b) a time difference of arrival measurement of a signal between the particular mobile station and the network of communication stations, and (c) a multipath pattern in signals communicated between the particular mobile station and the network of communication stations;

receiving at least one location estimate output by at least one of said first and second estimators depending on which of said corresponding input is available for said first and second estimators;

outputting location information that estimates a location of the particular mobile station, said location information obtained using a location estimate provided from said step of receiving.

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~~37~~. (new) The method of Claim ~~36~~, wherein said step of requesting includes determining whether said corresponding input portion for said second estimator is included in wireless transmissions between said particular mobile station and said network of communication stations when said step of first determining determines that said corresponding portion for said first estimator is not included in said wireless transmissions between said particular mobile station and said network of communication stations.

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~~38~~. (new) The method of Claim ~~36~~, further including a step of repeating:

(a) said step of activating for activating one or more of said selected estimators with their corresponding portion of additional wireless signal measurements between the particular mobile station and the communication stations for obtaining one or more location estimates of a location of said particular mobile station, and

(b) said step of outputting for outputting for one or more additional instances of said location information;

wherein said step of repeating is for obtaining a more accurate location estimate of the particular mobile station.

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~~39~~. (new) The method of Claim ~~36~~, further including a step of determining a frequency of performing said step of outputting for providing one or more additional instances of said location information to a location information receiving application.

35 34
~~40~~. (new) The method of Claim ~~39~~, wherein said location information receiving application is for one of: an emergency response, surveillance of a person, locating a vehicle, locating a first person by a predetermined second person wherein said second person is known to said first person, locating an animal, informing a person of his/her location.